

WHAT IS CLAIMED IS:

1. An apparatus for processing financial transactions, comprising:
a memory operable to store information and a program, the memory further
operable to store a first message indicating the making of a financial transaction, the
5 first message including customer information and transaction information; and
a processor coupled to the memory, the processor, according to the program,
operable to:
determine the validity of the customer information,
generate a second message indicating non-authorization of the
10 financial transaction if the customer information is invalid,
determine whether the financial transaction involves a micro-payment
if the customer information is valid,
instruct the memory to store at least part of the transaction information
and generate a third message indicating authorization of the financial transaction if the
15 financial transaction involves a micro-payment, and
generate an authorization request if the financial transaction does not
involve a micro-payment.
2. The apparatus of Claim 1, further comprising a communication
20 interface adapted to be coupled to a communication link and coupled to the memory,
the communication interface operable to receive information from and send
information over the communication link.
3. The apparatus of Claim 2, wherein the communication interface is a
25 network interface card.
4. The apparatus of Claim 1, wherein:
the customer information comprises a digital certificate; and
the transaction information comprises the time of initiation of the financial
30 transaction, the amount of the financial transaction, and a customer account identifier.

5. The apparatus of Claim 4, wherein the customer account identifier represents a credit card account.

6. The apparatus of Claim 4, wherein the digital certificate complies with
5 X.509.

7. The apparatus of Claim 1, wherein the memory comprises random access memory.

10 8. The apparatus of Claim 1, wherein the processor is further operable to determine whether the customer information is in an appropriate format and is associated with an account that is in good standing to determine the validity of the customer information.

15 9. The apparatus of Claim 1, wherein the processor is further operable to generate a validation request based on the customer information, receive a validation response indicating the validity of the customer information, and analyze the validation response to determine the validity of the customer information.

20 10. The apparatus of Claim 1, wherein the processor is further operable to determine whether the amount of the financial transaction is below a threshold to determine whether the financial transaction involves a micro-payment.

25 11. The apparatus of Claim 1, wherein the processor is further operable to instruct the memory to store the time of initiation of the financial transaction, the amount of the financial transaction, and a customer account identifier to instruct the memory to store at least part of the transaction information.

30 12. The apparatus of Claim 1, wherein the processor is further operable to instruct the memory to store, in a buffer, at least part of the transaction information for each of a plurality of financial transactions that involves a micro-payment.

13. The apparatus of Claim 1, wherein the processor is further operable to generate a fourth message to settle the financial transaction based on the stored part of the transaction information.

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14. The apparatus of Claim 13, wherein the processor generates the fourth message at a designated time.

15. The apparatus of Claim 1, wherein:
10 the first message includes merchant information; and
the processor is further operable to determine whether the merchant information is valid, generate the second message if the merchant information is invalid, and determine whether the financial transaction involves a micro-payment only if the merchant information is valid.

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16. The apparatus of Claim 15, wherein the merchant information comprises a digital certificate.

17. The apparatus of Claim 15, wherein the processor is further operable to
20 instruct the memory to store, in a buffer, at least part of the transaction information for each of a plurality of financial transactions that involves a micro-payment and is associated with the merchant information.

18. The apparatus of Claim 17, wherein the processor is further operable to
25 generate a fifth message to settle all of the financial transactions based on the part of the transaction information stored for each financial transaction in the buffer.

19. A method for processing financial transactions, comprising:
receiving a first message indicating the making of a financial transaction, the
first message including customer information and transaction information;
determining the validity of the customer information;
5 generating a second message indicating non-authorization of the financial
transaction if the customer information is invalid;
determining whether the financial transaction involves a micro-payment if the
customer information is valid;
if the financial transaction involves a micro-payment:
10 storing at least part of the transaction information, and
generating a third message indicating authorization of the financial
transaction; and
if the financial transaction does not involve a micro-payment, generating an
authorization request.

20. The method of Claim 19, wherein receiving a first message including
transaction information comprises receiving the time of initiation of the financial
transaction, the amount of the financial transaction, and a customer account identifier.

21. The method of Claim 20, wherein the customer account identifier
represents a credit card account.

22. The method of Claim 19, wherein:
the customer information comprises a digital certificate; and
25 determining the validity of the customer information comprises determining
the validity of the digital certificate.

23. The method of Claim 19, wherein determining the validity of the customer information comprises generating a validation request based on the customer information, receiving a validation response indicating the validity of the customer information, and analyzing the validation response.

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24. The method of Claim 19, wherein determining whether the financial transaction involves a micro-payment comprises determining whether the amount of the financial transaction is below a threshold.

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25. The method of Claim 19, wherein storing at least part of the transaction information comprises storing the time of initiation of the financial transaction, the amount of the financial transaction, and a customer account identifier.

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26. The method of Claim 19, further comprising storing at least part of the transaction information for each of a plurality of financial transactions that involves a micro-payment.

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27. The method of Claim 19, further comprising generating a fourth message to settle the financial transaction based on the stored part of the transaction information.

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28. The method of Claim 27, wherein generating a fourth message to settle the financial transaction comprises generating the fourth message at a designated time.

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29. The method of Claim 19, wherein the first message includes merchant information, and further comprising:
determining the validity of the merchant information;
generating the second message if the merchant information is invalid; and
determining whether the financial transaction involves a micro-payment only if the merchant information is valid.

30. The method of Claim 29, wherein the merchant information comprises a digital certificate.

5 31. The method of Claim 29, further comprising storing, in a buffer, at least part of the transaction information for each of a plurality of financial transactions that involves a micro-payment and is associated with the merchant information.

10 32. The method of Claim 31, further comprising generating a fifth message to settle all of the financial transactions based on the part of the transaction information stored for each financial transaction in the buffer.

33. A set of logic encoded in media for processing financial transactions, the logic operable to perform the following operations:

detect the reception of a first message indicating the making of a financial transaction, the first message including customer information and transaction
5 information;

determine the validity of the customer information;

generate a second message indicating non-authorization of the financial transaction if the customer information is invalid;

determine whether the financial transaction involves a micro-payment if the
10 customer information is valid;

if the financial transaction involves a micro-payment:

instruct a memory to store at least part of the transaction information,
and

generate a third message indicating authorization of the financial
15 transaction; and

if the financial transaction does not involve a micro-payment, generate an authorization request.

34. The logic of Claim 33, wherein the transaction information includes
20 the time of initiation of the financial transaction, the amount of the financial transaction, and a customer account identifier.

35. The logic of Claim 34, wherein the customer account identifier represents a credit card account.
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36. The logic of Claim 33, wherein:
the customer information comprises a digital certificate; and
the logic is further operable to determine the validity of the digital certificate
to determine the validity of the customer information.

37. The logic of Claim 33, wherein the logic is further operable to generate a validation request based on the customer information, receive a validation response indicating the validity of the customer information, and analyze the validation response to determine the validity of the customer information.

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38. The logic of Claim 33, wherein the logic is further operable to determine whether the amount of the financial transaction is below a threshold to determine whether the financial transaction involves a micro-payment.

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39. The logic of Claim 33, wherein the logic is further operable to instruct the memory to store the time of initiation of the financial transaction, the amount of the financial transaction, and a customer account identifier to instruct a memory to store at least part of the transaction information.

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40. The logic of Claim 33, wherein the logic is further operable to instruct the memory to store at least part of the transaction information for each of a plurality of financial transactions that involves a micro-payment.

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41. The logic of Claim 33, wherein the logic is further operable to generate a fourth message to settle the financial transaction based on the stored part of the transaction information.

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42. The logic of Claim 41, wherein the logic is further operable to generate the fourth message at a designated time.

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43. The logic of Claim 33, wherein the first message includes merchant information, and the logic is further operable to:

determine the validity of the merchant information;

generate the second message if the merchant information is invalid; and

determine whether the financial transaction involves a micro-payment only if the merchant information is valid.

44. The logic of Claim 43, wherein the merchant information comprises a digital certificate.

5 45. The logic of Claim 43, wherein the logic is further operable to instruct the memory to store, in a buffer, at least part of the transaction information for each of a plurality of financial transactions that involves a micro-payment and is associated with the merchant information.

10 46. The logic of Claim 45, wherein the logic is further operable to generate a fifth message to settle all of the financial transactions based on the part of the transaction information stored for each financial transaction in the buffer.

47. The logic of Claim 33, wherein the media is random access memory.

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48. An apparatus for processing financial transactions, comprising:

a communication interface adapted to be coupled to a communication link, the communication interface operable to receive information from and send information over the communication link, the communication interface further operable to receive
5 a first message indicating the making of a financial transaction, the first message including customer information, merchant information, and transaction information;

a memory coupled to the communication interface, the memory operable to store information and a program;

10 a processor coupled to the memory, the processor, according to the program, operable to:

generate a validation request based on the customer information and the merchant information,

receive a validation response indicating the validity of the customer information and the merchant information,

15 generate a second message indicating non-authorization of the financial transaction if either the customer information or the merchant information is invalid,

determine, if both the customer information and the merchant information are valid, whether the financial transaction involves a micro-payment by
20 analyzing whether the amount of the financial transaction is below a threshold,

if the financial transaction involves a micro-payment, instruct the memory to store at least part of the transaction information in a buffer and generate a third message indicating authorization of the financial transaction,

25 if the financial transaction does not involve a micro-payment, generate an authorization request, receive an authorization response, and generate a fourth message indicating the authorization status of the financial transaction, and

generate a fifth message to settle the financial transaction based on the part of the transaction information stored in the buffer.

30 49. The apparatus of Claim 48, wherein the communication interface is a network interface card.

50. The apparatus of Claim 48, wherein:
the customer information comprises a digital certificate;
the merchant information comprises a digital certificate; and
5 the transaction information comprises the time of initiation of the financial
transaction, the amount of the financial transaction, and a customer account identifier.

51. The apparatus of Claim 48, wherein the memory comprises random
access memory.

10 52. The apparatus of Claim 48, wherein the processor is further operable to
instruct the memory to store the time of initiation of the financial transaction, the
amount of the financial transaction, and a customer account identifier in the buffer to
instruct the memory to store at least part of the transaction information in a buffer.

15 53. The apparatus of Claim 48, wherein the processor is further operable to
instruct the memory to store at least part of the transaction information for each of a
plurality of financial transactions that involves a micro-payment in the buffer.

20 54. The apparatus of Claim 48, wherein the processor generates the fifth
message at a designated time.